WHAT IS CLAIMED IS

1.   A method of correcting a differential image for detecting a shape change between one input image and another input image comprising the steps of:

setting reference areas which are deemed to have no shape change to the one and another input images In1(x,y) and In2(x,y), respectively;

operating average values ave1 and ave2 of pixel values of the reference areas; and

producing a differential image S(x,y) in accordance with an equation of

$$S(x,y) = In1(x,y) - In2(x,y) - (ave1 - ave2).$$

2.   A method of correcting a differential image for detecting shape change according to claim 1, wherein an offset value is applied at the differential image producing step.

3.   A method of correcting a differential image for detecting shape change according to claim 1, further comprising a step of displaying the differential image S(x,y).

4.   An apparatus for correcting a differential image for detecting shape change comprising:

an image data storing means for storing image data;

a reference area setting means for setting reference areas which are deemed to have no shape change to one and another input images, respectively;

a reading means for reading the image data from the image data storing means and the reference area data from the reference area setting means;

an average value operating means for calculating average values of pixel values of the reference areas of the input images, respectively; and

a differential image producing means for producing a differential image on the basis of the average values calculated in the average value operating means.

5.   An apparatus for correcting a differential image for detecting shape change according to claim 4, further comprising an offset value setting means for applying an offset value to the differential image producing means.

6.   An apparatus for correcting a differential image for detecting shape change according to claim 4, further comprising a display means for displaying the differential image.